

## Claims

- [1] A method for the vitrification of human oocytes, which comprises:
  - (a) placing human oocytes on a transfer instrument; and
  - (b) placing the transfer instrument and the human oocytes directly into a slushed nitrogen ( $N_2$  slush), wherein the human oocytes are directly exposed to the  $N_2$  slush thereby undergoing vitrification, and wherein the human oocytes are able to live for a period of time after the human oocytes are devitrified.
- [2] The method according to claim 1, wherein the transfer instrument is a gold grid.
- [3] The method according to claim 1, wherein the step (a) further comprises treating the human oocytes with a cryoprotectant prior to vitrification.
- [4] Human oocytes which has undergone vitrification produced by the method according to any one of claims 1 to 3.
- [5] A method for the vitrification and devitrification of human oocytes, which comprises:
  - (a) placing human oocytes on a transfer instrument;
  - (b) placing the transfer instrument and the human oocytes directly into  $N_2$  slush, wherein the human oocytes are directly exposed to the  $N_2$  slush thereby undergoing vitrification, and wherein the human oocytes are able to live for a period of time after the human oocytes are devitrified; and
  - (c) devitrifying the human oocytes which have undergone vitrification.
- [6] A method for the vitrification and storage of human oocytes, which comprises:
  - (a) placing human oocytes on a transfer instrument;
  - (b) placing the transfer instrument and the human oocytes directly into  $N_2$  slush, wherein the human oocytes are directly exposed to the  $N_2$  slush thereby undergoing vitrification, and wherein the human oocytes are able to live for a period of time after the human oocytes are devitrified;
  - (c) transferring the human oocytes which have undergone vitrification into a storage container, the storage container containing a freezing material; and
  - (d) storing the storage container containing the human oocytes which have undergone vitrification until the human oocytes are ready to devitrified.